

## **University of Mississippi**

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Purpose: To explore interferometry and beamline elements. Method: We built a small demonstration Michelson Interferometer and also an aluminum window thickness gauge using radioactive attenuation in material. Results: The interferometer could pick up small vibrations in the room and even music and voice, which were broadcast through a speaker. We measured a beamline window for an accelerator project to be 190 microns with good precision. The interferometer will be used at the high schools to introduce students to the concept. The thin accelerator windows are being machined in Mississippi and now can be safely measured by passive means for the MICE project.